

Kentucky Statewide Corridor Plan (SWCP)



Kick-off Meeting

KYTC Central Office

October 14, 2019

Topics



- **Project Overview**
- **Immediate Tasks**
- **Data Needs & Request**
- **Next Steps**

Project Team

■ Stakeholders & Planning Partners

○ Members

- KYTC
- MPOs
- ADDs

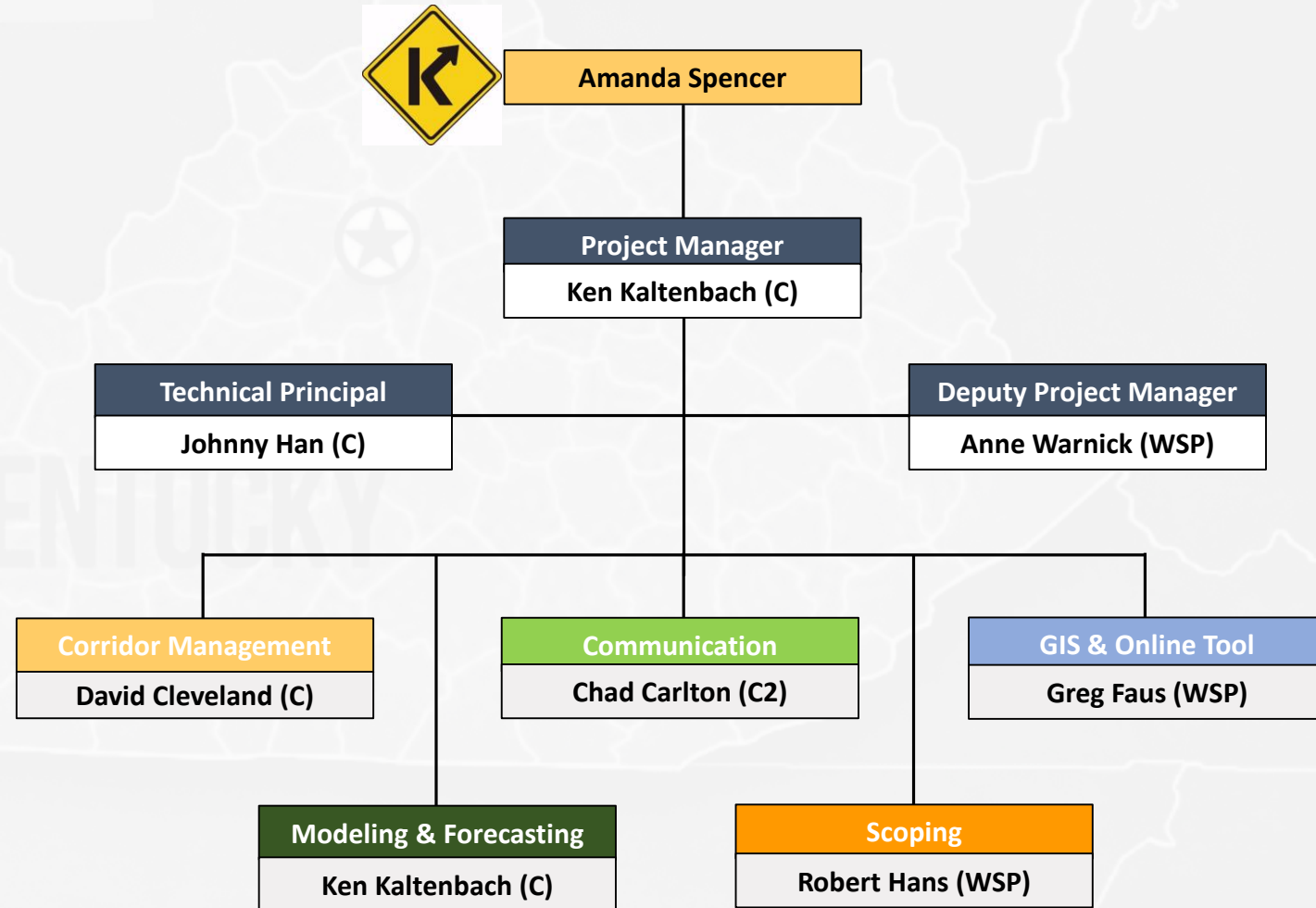
○ Responsibilities

- Provide guidance & resources
- Participate in coordination & outreach activities
- Decision making

Project Team (cont.)

■ Consulting Team

- Corradino
- WSP
- C2
- Third Rock (DBE)
- Integrated Engineering (DBE)
- Corn Island (DBE)



Project Background

- **Project Description**

To identify current and future needs, prioritize statewide and regional corridors with the greatest potential for impact, begin to establish practical visions for each corridor, and identify areas where new connections may be needed.

- **Project Purpose**

To build on the success of the Strategic Highway Investment Formula for Tomorrow (SHIFT) and begin meaningful long-term planning that will inform the next long-range transportation and future Six Year Highway Plans.

- **Project Goals (immediate task)**

Review draft goals soon ...



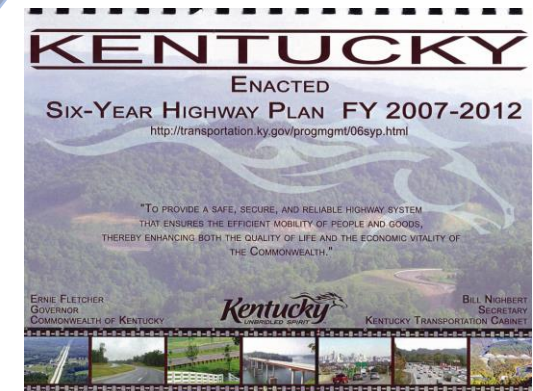
Kentucky's Long-Range Statewide Transportation Plan:
Planning to Make a Difference in America's Tomorrow



Steven L. Boehrer
Governor
Commonwealth of Kentucky

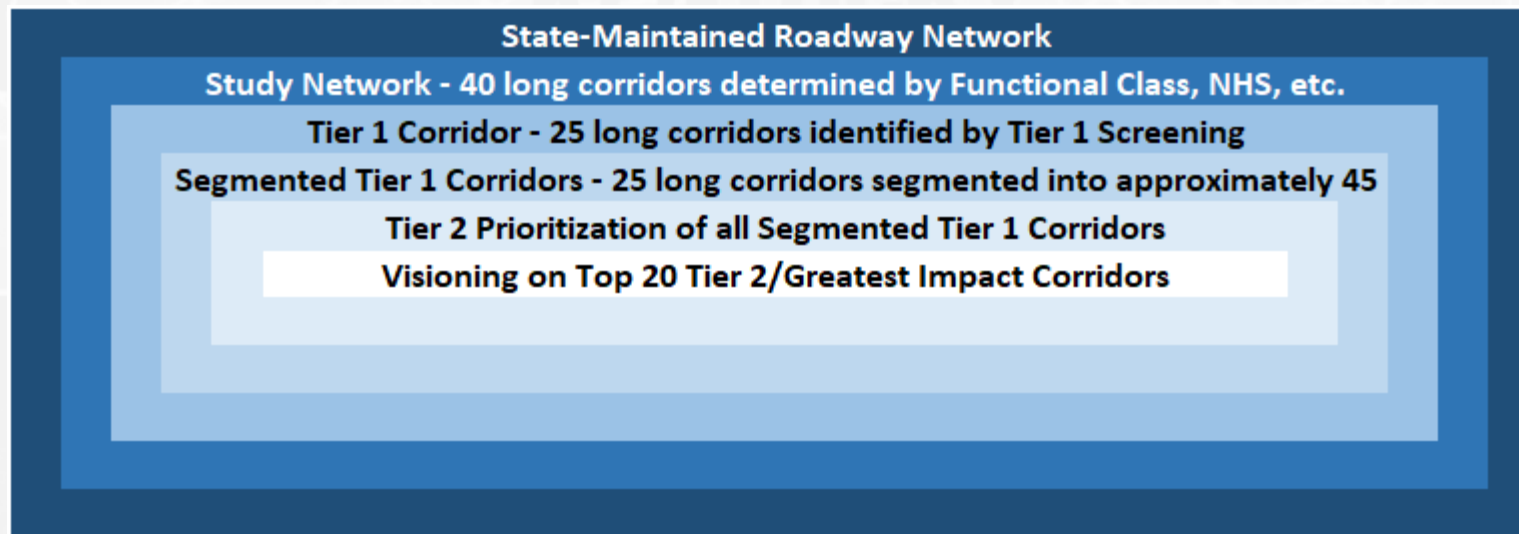
2014-2035

Michael W. Hancock, P.E.
Secretary
Kentucky Transportation Cabinet



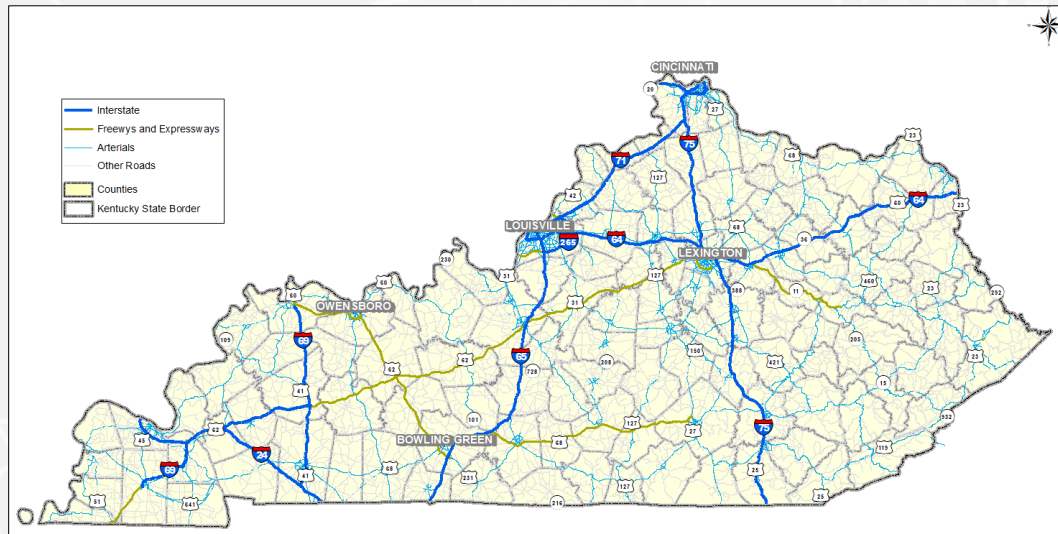
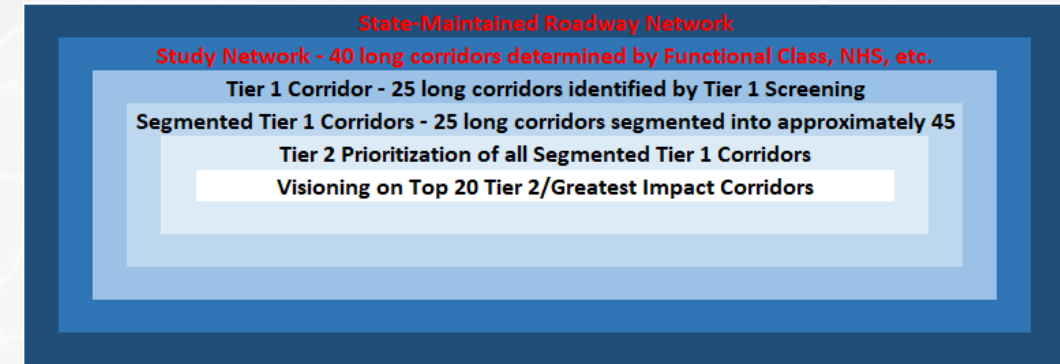
SWCP Methodology

- Principles and procedures in NCHRP 661: *A Guidebook for Corridor-Based Statewide Transportation Planning*
- Tiered approach (Tier 1 & Tier 2 corridor analysis)
- Data-driven
- Base Year (2015), Intermediate Year (2025), Future Year (2045)



Establish SWCP Study Network

- Start with state-maintained roadways
- Determine 40 long key corridors
(immediate task)
 - criteria



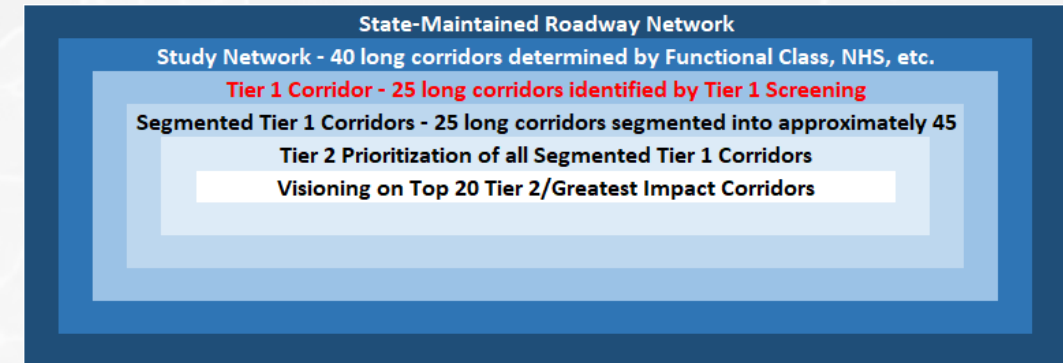
Tier 1 Corridor Screening

- Start with **40** long key corridors

- Corridor screening

- Corridor performance (mobility, accessibility, safety)
- Intangible factors
- cursory scoping, cost estimation, economic analysis
- Stakeholder inputs

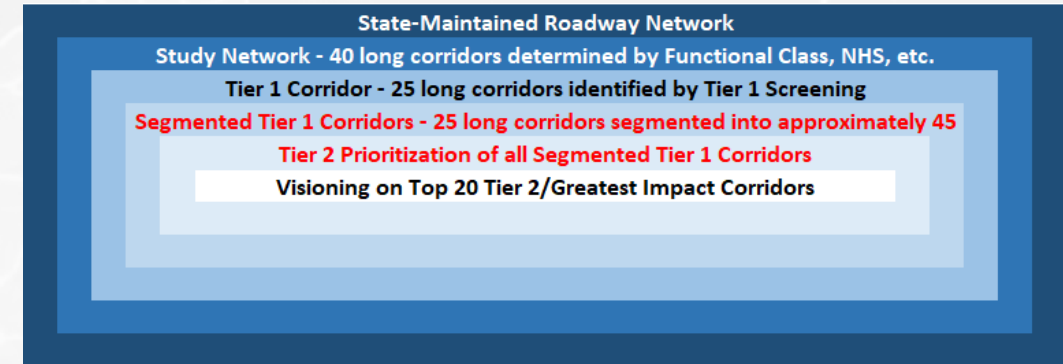
- Identify **25** highest performing Tier 1 corridors (carried towards Tier 2 analysis)



| Potential Evaluation Criteria | | | Data Sources & Tools | Tier 1 Screening | Tier 2 Prioritization & Vision |
|-------------------------------|------------------------------------|-----------------------------------|--|------------------|--------------------------------|
| Performance Measures | Demand | Traffic Volume & Growth | KYSTM, TFT, MPO Model, Counts | X | X |
| | | Freight/Truck Volume & Growth | KYSTM, TFT, MPO Model, Counts | X | X |
| | Mobility | VHT Delay & Reduction | KYSTM, MPO Model | X | X |
| | | Level of Congestion | KYSTM, MPO Model, FDOT LOS/AADT Table | X | X |
| | | Travel Time Reliability | INRIX / NPMRDS | | X |
| | | Peak-period Speed | INRIX / NPMRDS, MPO Model | | X |
| | | Long-distance Travel | KYSTM, FHWA's TAF | | X |
| | Accessibility | Service Center | KYSTM, MPO Model, Google Map | X | X |
| | | Industrial Parks | KYSTM, KYTC Freight Plan, KY Geography Network | X | X |
| | | Travel Market of Corridor | KYSTM, MPO Model | | X |
| | | Access to Educational Facilities | KYSTM, MPO Model, KY Geography Network | X | X |
| | | Access to Hospitals | KYSTM, MPO Model, Google Map | X | X |
| | Safety | Access to Military Base | KYSTM, MPO Model, Google Map | X | X |
| | | Crash Rates, SPF Curve/EEC Rate | Kentucky State Police, KTC | X | |
| | | Crash Modification Factors (CMFs) | KTC | | X |
| | Economic Benefits & Jobs | TREDIS | X | X | |
| | Pavement & Bridge Condition | HIVEi | | X | |
| | Land Use & Growth | KYSTM, MPO Model, ACS | | X | |
| | Environmental Red Flag | Available GIS Data | X | X | |
| Intangible Indicators | MOT in Construction | | | X | X |
| | Benefit / Cost Ratio | | | X | X |
| | Multi-modal Opportunity | | Corridor-specific Strategies | | X |
| | ITS & CAV | | Coordination with KYTC | | X |
| | Innovative Delivery (P3) | | | | X |
| | Link to KYTC's Existing Strategies | | | X | |
| Cost of Corridor Improvements | | | KYTC Historical Data, Infotech Estimator | X | X |

Tier 2 Corridor Prioritization

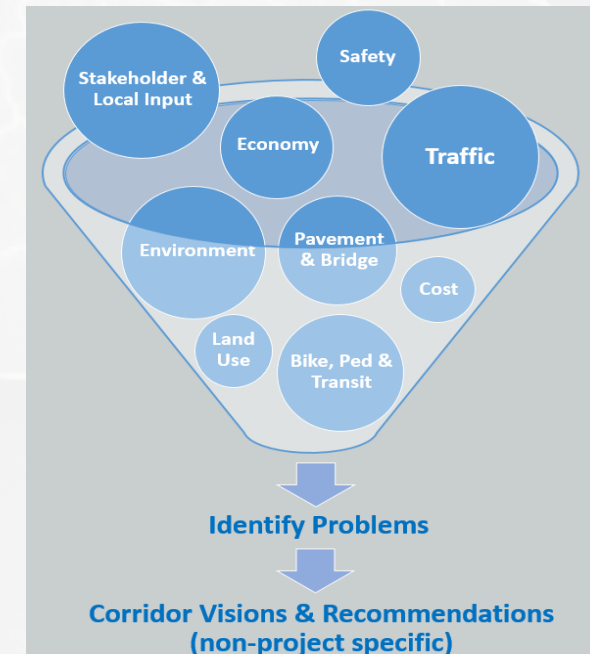
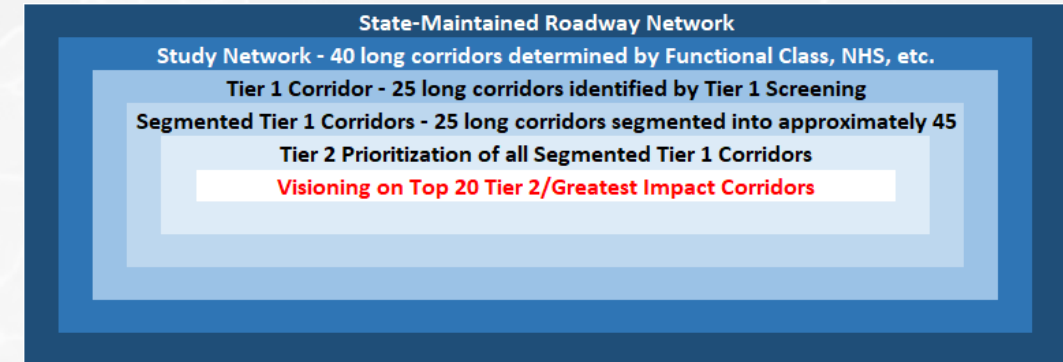
- Start with **25** Tier 1 long corridors
- Divide **25** corridors to **45** segments
- Corridor prioritization
 - More detailed corridor performance (mobility, accessibility, safety)
 - Intangible factors
 - More detailed scoping, cost estimation, economic analysis
 - Stakeholder inputs
- Recommend top **20** corridor segments with greatest impact



| Potential Evaluation Criteria | | | Data Sources & Tools | Tier 1 Screening | Tier 2 Prioritization & Vision |
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| | | Peak-period Speed | INRIX / NPMRDS, MPO Model | | X |
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| Intangible Indicators | MOT in Construction | | | X | X |
| | Benefit / Cost Ratio | | | X | X |
| | Multi-modal Opportunity | | Corridor-specific Strategies | | X |
| | ITS & CAV | | Coordination with KYTC | | X |
| | Innovative Delivery (P3) | | | | X |
| | Link to KYTC's Existing Strategies | | | X | |
| Cost of Corridor Improvements | | | KYTC Historical Data, Infotech Estimator | X | X |

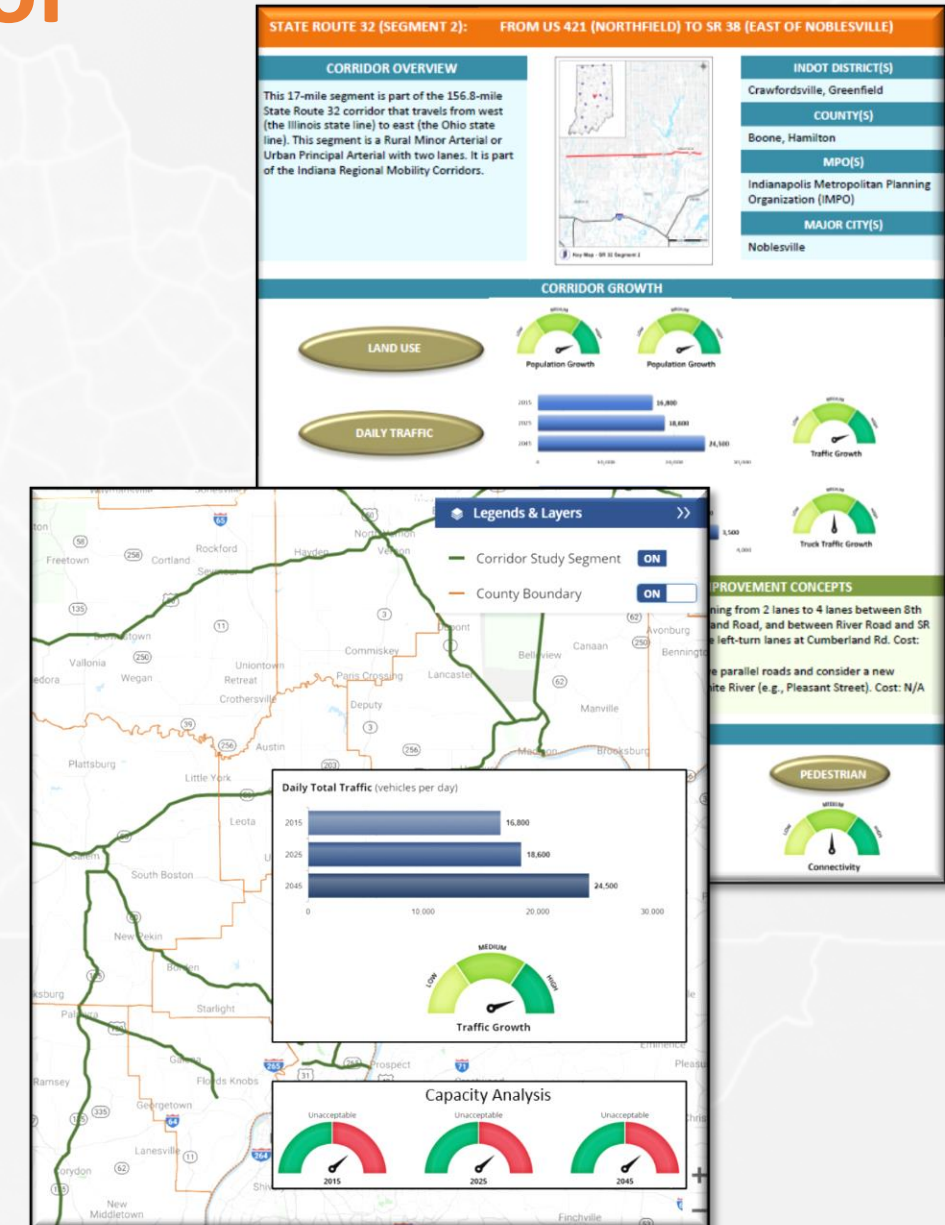
Corridor Visioning

- Top **20** Tier 2 corridor segments
- Practical Corridor Vision
 - Comprehensive planning elements
 - Current & future conditions
 - Identify needs/issues for each corridor segment
 - Planning-level corridor-wide and **non-project specific** strategies (intermediate 2025, long-term 2045)
 - Stakeholder/public inputs



GIS Online Tool

- **Corridor Profile (behind)**
 - A database to summarize Corridor Vision
 - Easy to maintain & update
- **GIS Online Application (front)**
 - Interactive map displaying study corridors
 - Ability to access Corridor Profile via internet and smart devices
 - Open for KYTC's continuous maintenance and update



Stakeholder & Public Outreach

- **Communication Plan**
- **Project Website**

Office of Public Affairs

Crafting Kentucky Transportation Cabinet Communication



Tasks to
Start
Immediately



Tasks to
Start
Immediately

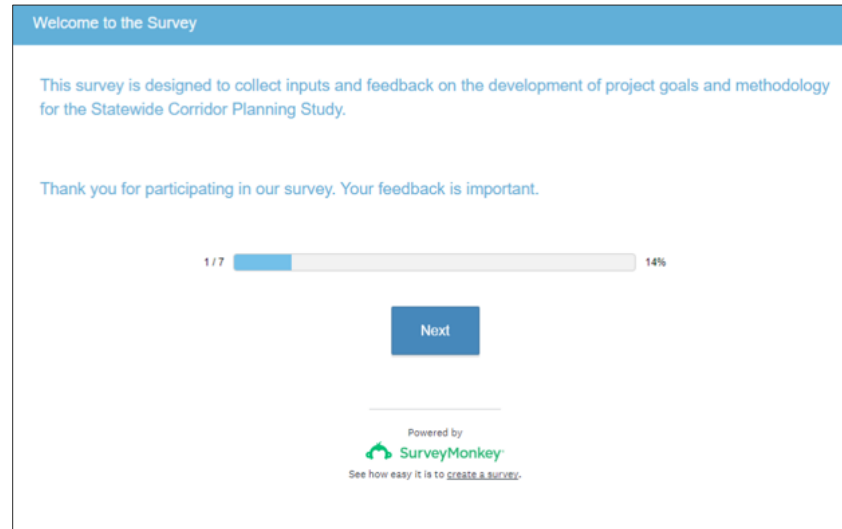
Project Goals (preliminary)

- To support the KYTC's next Long-Range Statewide Transportation Plan (LRSTP) and future Six Year Highway Plans.
- To identify current and future statewide needs in terms of corridor performance including **Mobility**, **Accessibility**, and **Safety**.
- To prioritize statewide and regional corridors with the greatest potential to provide economic benefits to Kentucky.
- To develop practical and **non-project specific** corridor visions for the top corridors. Visions will identify **intermediate (2025)** and **long-term (2045)** transportation needs, improvement strategies for staged implementation (by 10- and 30- year planning horizon) based on expected corridor performance.
- To be consistent with general long-range planning requirements and procedures.
- To gather input and opinions from key stakeholders, planning partners, and the public.
- To present study goals, methods and findings in easy-to-understand reports, and to display supporting data and findings through easy-to-use GIS online applications.

To Finalize Project Goals

- Online Survey
- Collect inputs from stakeholders and planning partners

Tasks to
Start
Immediately



Welcome to the Survey

This survey is designed to collect inputs and feedback on the development of project goals and methodology for the Statewide Corridor Planning Study.

Thank you for participating in our survey. Your feedback is important.

1 / 7 14%

Next

Powered by
SurveyMonkey
See how easy it is to [create a survey](#).



**Tasks to
Start
Immediately**

Establish SWCP Study Network

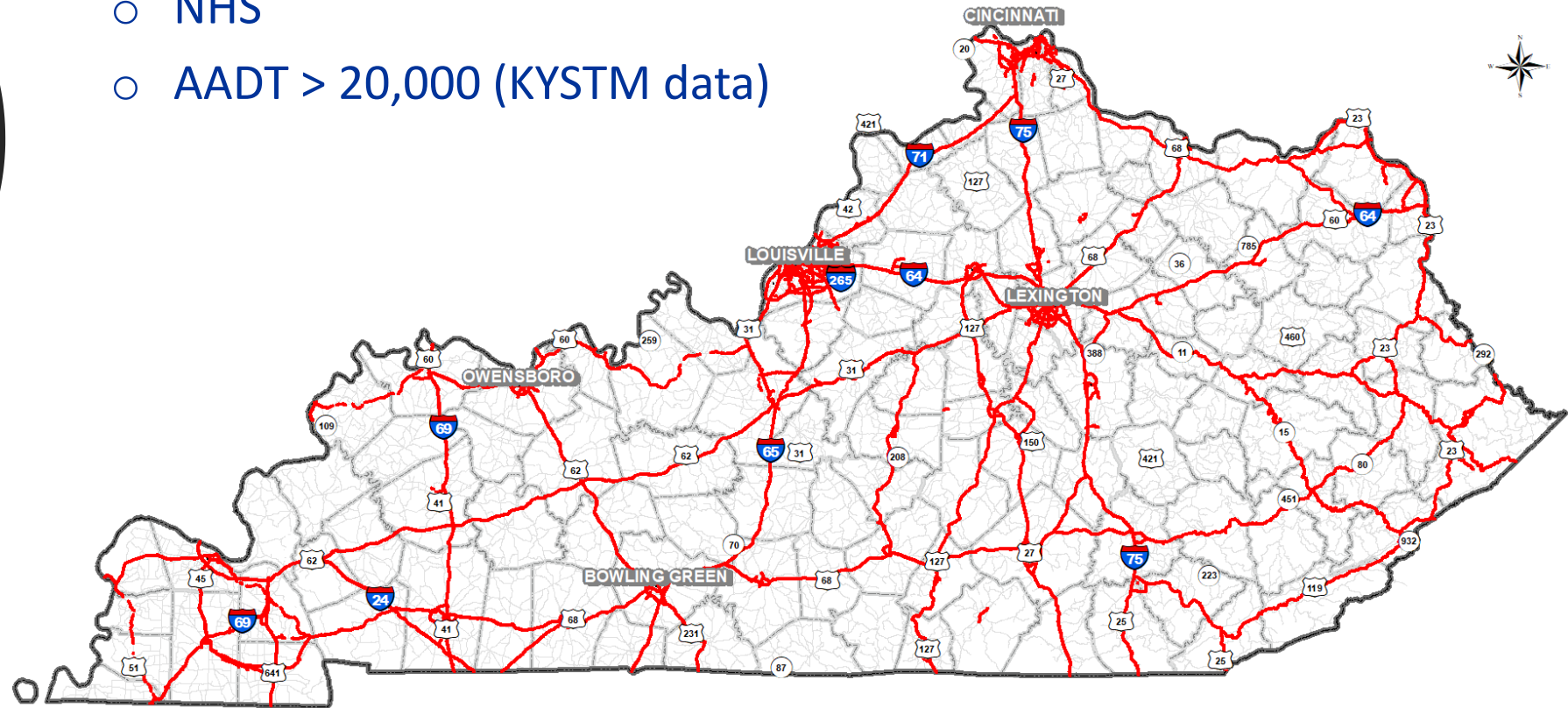
- **General Guideline to Determine 40 Corridors**
 - Functional Class (Principal Arterial and above)
 - National Highway System (NHS)
 - National Highway Freight Network (NHFN)
 - High-volume passenger vehicle corridors
 - Fill “gap” as needed

Tasks to
Start
Immediately

Establish SWCP Study Network

■ Example Study Network (a good start)

- Principal Arterial and above
- NHS
- AADT > 20,000 (KYSTM data)



Kentucky Statewide Traffic Model (KYSTM) Setup



Tasks to
Start
Immediately

- KYSTM18 update is under progress.
- 2016 & 2017 TAZ data is available, but need to develop reliable 2025 & 2045 TAZ data.
- Need to fix/enhance model components for future SE data forecasts, network scenarios management, etc.

Latest KYSTM Package

- Base Year (2015, 2016, 2017)
- Future Year (2040)



Data
Request

Bottleneck / Travel Time Reliability

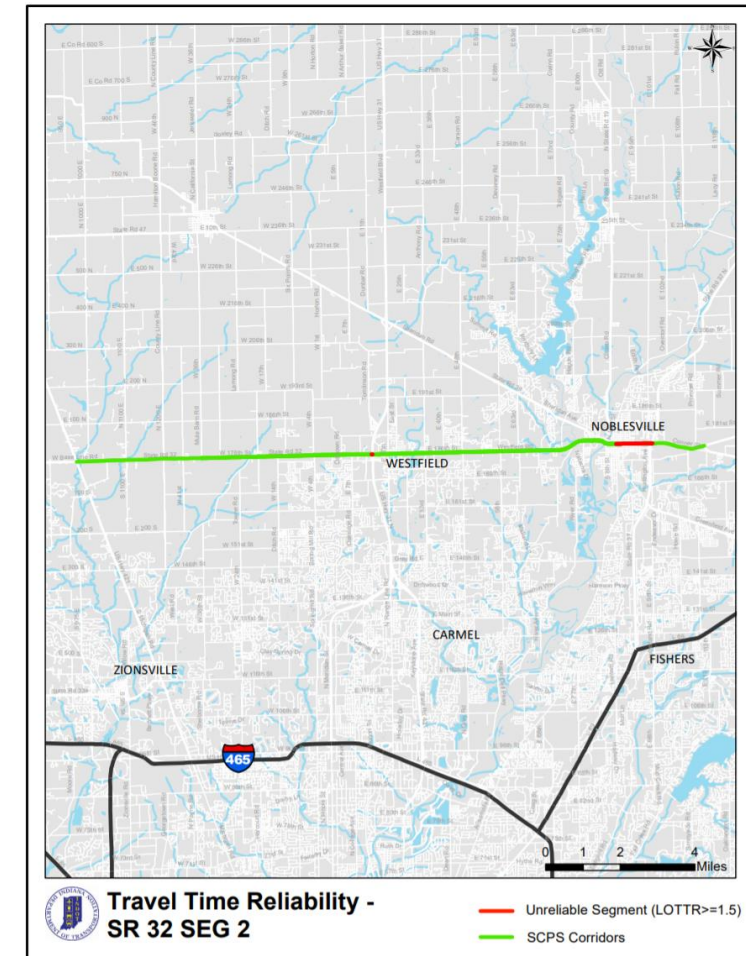
Data
Request

Ideally ...

- Level of Travel Time Reliability (LOTTR)
- Truck Travel Time Reliability (TTTR)

Or ...

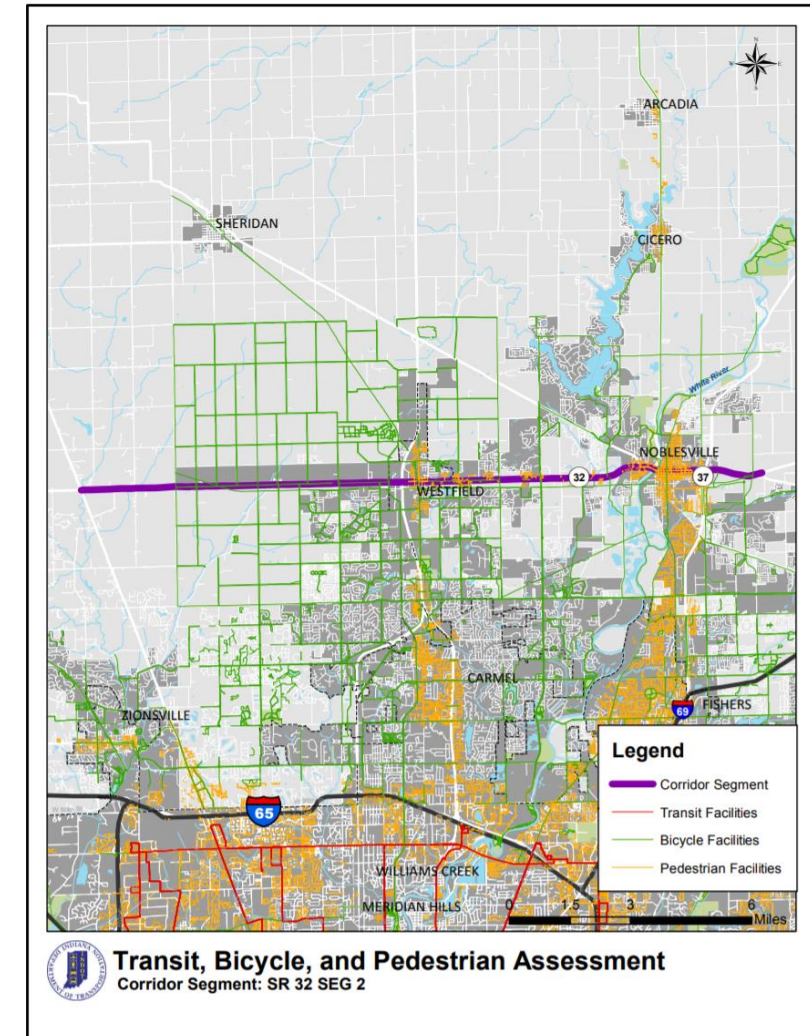
- Raw speed/travel time data



Multi-Modal Facilities & Connectivity

Data
Request

- Bike
- Pedestrian
- Transit



Safety – Crash Data

- **Excess Expected Crash (EEC)**
- **Data-Driven Safety Analysis (DDSA)**



**Data
Request**



Data
Request

Roadway Inventory Data

- Highway Information System (HIS)

Pavement & Bridge Condition

Environmental Red Flag

Cost Estimation Tools

Project Schedule

| Major Task | 2019 | | | 2020 | | | | | | | | | | | | 2021 | |
|---|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|
| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb |
| 1. Develop Goals & Objectives | ★ | | | | | | | | | | | | | | | | |
| 2. Establish Statewide Corridor Network | | | | | | | | | | | | | | | | | |
| 3. Tier 1 Corridor Screening | | | | | | | | | | | | | | | | | |
| 4. Tier 2 Corridor Prioritization | | | | | | | | | | | | | | | | | |
| 5. Draft Report | | | | | | | | | | | | | | | | | |
| 6. Tier 2 Corridor Vision | | | | | | | | | | | | | | | | | |
| 7. Final Report | | | | | | | | | | | | | | | | | |

LEGEND

- ★ Project Kick-off
- 👤 KYTC Review Meeting
- 📋 KYTC Submittal

Draft Report

Final Report & Online Tool

Note: interim tasks and meetings are not shown in the chart.

Next Steps

- **Schedule Next Meetings**
 - Project Leadership Meetings (bi-weekly)
 - State Transportation Planning (STP) Meetings
 - Project Team Meetings (8 milestones)
- **Project Team Meetings #1 to Review**
 - Draft Project Goals
 - Draft SWCP Study Network